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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/578,041 | 11/29/2006 | Sanjay Kalhan | 3285-01 | 5326 |

26645 7590 12/23/2009

THE LUBRIZOL CORPORATION
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| EXAMINER | |
|---|---|
| OLADAPO, TAIWO | |
| ART UNIT | PAPER NUMBER |
| 1797 | |
| MAIL DATE | DELIVERY MODE |
| 12/23/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/578,041 | KALHAN ET AL. | |
| | Examiner | Art Unit | |
| | TAIWO OLADAPO | 1797 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *02 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. The response dated 09/02/2009 has been considered and entered for the record. The response does not overcome the previous rejections which are hereby maintained.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vickerman (US 5,670,081) in view of Eckard et al. (US 6,225,267).

5. In regards to claims 1, 2, 7, 8, 15, Vickerman teaches emulsifier blends comprising a salt formed from a high molecular weight polycarboxylic acylating agent having from 20 to 500 carbons (A)(I) reacted with a low molecular weight polycarboxylic acylating agent having up to 18 carbons (B)(I), and a compound (C) comprising amino two or more primary or secondary

amino groups or hydroxyl groups, wherein the ratio of (B)(I) to (A)(I) is in the range of 2.5 to 1 or larger (column 2 lines 32 – 56). The range of (B)(I) components overlaps the range in the claimed invention. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Vickerman teaches that the salt produced is used in 70% of an emulsifier composition (column 22 lines 66 – 67). Vickerman teaches the composition comprises sulfonates but does not recite the sulfonates are arene sulfonates (column 22 line 44). Eckard teaches emulsifiers for use in metal working lubricants similar to the invention of Vickerman (title, column 2 lines 63 – 66). Eckard teaches that the emulsifiers can contain blends having branched alkyl aryl sulfonate of from about 10 to 20 wt. %, and linear alkyl aryl sulfonates of from about 20 to 30 wt. %, or a total of from 30 to 50% alkyl aryl sulfonates which meets the claimed ranges (column 4 lines 21)

It would have been obvious for one of ordinary skill in the art at the time of the invention to have used the alkyl aryl sulfonates of Eckard in the alkyl sulfonate emulsifier composition of Vickerman; because Eckard teaches they are suitable as emulsifiers for lubricating oils.

6. In regards to claim 3, Vickerman and Eckard combined teach the composition wherein poly(isobutylene) groups are used to prepare high molecular weight component (A)(I) (Vickerman, column 20, Example 1).

7. In regards to claims 4, 5, Vickerman and Eckard combined teach the composition comprising (B)(I) prepared from hydrocarbyl groups having an overlapping range of carbons as previously recited.

8. In regards to claim 6, Vickerman and Eckard combined teach the composition wherein the hydrocarbyl groups of (B)(I) comprise i.e. $C_{12-18}$ alpha olefins (Vickerman, column 3 lines 58 – 67; column 4 lines 1 – 30).

9. In regards to claims 9, 10, 12, Vickerman and Eckard combined teach the composition wherein component (C) is polyol such as polyhydric alcohol i.e., ethylene glycol (Vickerman, column 12 lines 64 – 67, column 14 lines 8 – 11)

10. In regards to claim 11, Vickerman and Eckard combined teach the composition comprising amino groups such as mono, di, and triethanol amine (Vickerman, column 16 lines 4 – 5).

11. In regards to claim 13. Vickerman and Eckard combined teach the composition comprising diols such as glycols which meets the compound(s) having the limitations of the formula recited, as previously stated.

12. In regards to claim 14, Vickerman and Eckard combined teach the composition having the components recited as previously stated.

13. In regards to claims 16, 17, Vickerman and Eckard combined teach the composition wherein the counterion is used for making the product. Since the counterion is a non-limiting reagent, an excess would be used in order to ensure a higher percent conversion of [A][I] and [B][I] reactants.

14. In regards to claim 18, Vickerman and Eckard combined teach the oil in water emulsion comprising the components recited as previously stated.

***Response to Arguments***

15. Applicants' arguments have been fully considered but they are not persuasive.

16. Applicants argue that there would be no motivation to combine Vickerman with Eckard as there are not many variation in Eckard that are not already available in Vickerman. In response to applicants' argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the similarities of Eckard and Vickerman as emulsions suitable for use as metal working fluids make it obvious for one of ordinary skill in the art to use combinations of the inventions as disclosed. The arguments are therefore not persuasive to rebut the case of obviousness.

17. Applicants point to the statement which recites "alkyl sulfonated emulsifier of Vickerman" and questions whether it is a typo or if it is intended to substitute generic sulfonate in Vickerman by the sulfonate of Eckard. The later analysis supports the basis for the combination of the two references.

***Conclusion***

18. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAIWO OLADAPO whose telephone number is (571)270-3723. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TO

/Ellen M McAvoy/
Primary Examiner, Art Unit 1797